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Martin Broberg

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/722,575
Filing Date: November 28, 2003
Appellant(s): BROBERG ET AL.

Thomas P. Pavelko
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed November 6, 2009 appealing from the Office action mailed February 3, 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: In the first ground of rejection the references are listed as Sjoberg et al. (WO 02/47906) in view of either JP 01310058 (see also the abstracts) or JP 02299842 (see also the abstract), Breitscheidel et al. (U.S. Patent 4,882,208), and Moebus (WO 01/21633) and partial English language equivalent (U.S. 6,761,961). However, U.S. 6,761,961 is the English language equivalent of WO 01/21633 and not a separately applied reference.

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(7) Claims Appendix

A substantially correct copy of appealed claims 1, 2, 10-12, 14-17, 24-38, 40-55, and 63-65 appears on pages 15-20 of the Appendix to the appellant's brief. The minor errors are as follows: Claim 1 in the Appendix is claim 1 prior to the amendment made by appellants on 9/25/08. Appellants arguments in the appeal brief are directed to the claims as presented in the amendment made on 9/25/08, and considered in the final rejection mailed 2/3/09 such that the presentation of claim 1 in the Appendix of appellants brief appears to be simply a typographical error. Claim 1 as considered in the final rejection mailed 2/3/09 and as should be present as claim 1 in the appeal brief is set forth below:

1. A process for the manufacturing of a decorative laminate, which laminate comprises an uppermost and lower visible surface, the uppermost surface comprising a decorative and abrasion resistant thermosetting laminate layer; a carrying core, beneath the uppermost surface wherein the core comprises fiber board and wherein an upper-side of the core is provided with the abrasion resistant thermosetting laminate and that the lower visible surface consists of a balance layer, said balance layer having the purpose of preventing warping of said decorative laminate and at the same time having the purpose of acoustic dampening, said balance layer consisting of a single polymer layer, said polymer consisting of an expanded physically cross linked polyolefin with closed cells whereby said balance layer and said thermosetting laminate are joined with said fiber board core by pressing, whereupon the achieved laminate is cut into panels and provided with edges intended for joining.

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(8) Evidence Relied Upon

WO 02/47906	Sjoberg et al.	06-2002
JP 01-310058	Baba	12-1989
JP 02-299842	Minegishi et al.	12-1990
US 4,882,208	Breitscheidel et al.	11-1989
WO 01/21366	Moebus	03-2001
US 6,761,961	Moebus	07-2004
US 4,770,916	Leukel et al.	09-1988
US 4,885,659	Nowell et al.	12-1989

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 2, 10-12, 14-17, 30-32, 37, 38, 40-55, 63, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sjoberg et al. (WO 02/47906) in view of either JP 01310058 (see also the abstracts) or JP 02299842 (see also the abstract), Breitscheidel et al. (U.S. Patent 4,882,208), and Moebus (WO 01/21366 and see also English equivalent U.S. Patent 6,761,961).

Sjoberg discloses a method of manufacturing a decorative laminate used for floor coverings comprising providing a carrying core layer, e.g. fiber board, providing a dampening (e.g. acoustic dampening) foil layer of a thermoplastic polyolefin elastomer on the upper side of the core layer, providing an uppermost visible decorative and abrasion resistant thermosetting laminate layer on the foil layer, and then pressing to form the decorative laminate (Page 1, lines 17-26 and Page 2, lines 12-14). Sjoberg is silent as to the lower visible surface below the core layer consisting of a balance layer. It was known to provide in a decorative laminate as the

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lower visible surface beneath the carrying core layer (1 of Figure 3 of JP 01310058 and 1 of Figure 1 of JP 02299842) a balance layer (5 of Figure 3 of JP 01310058 and 3 of Figure 1 of JP 02299842) consisting of ethylene foaming material, e.g. considered conventionally polyethylene and a foaming agent, to provide improved cushioning as shown by JP 01310058 (See the abstracts and 5 of Figure 3) or a closed cell foam to prevent warping of the laminate and provide improved cushioning as shown by JP 02299842 (See the abstract and 3 of Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include beneath the core layer prior to pressing in the method taught by Sjoberg a balance layer as shown by either one of JP 0130058 or JP 02299842 to prevent warping of the laminate and provide improved cushioning.

Sjoberg as modified by either one of JP 0130058 or JP 02299842 do not specifically describe the balance layer as consisting of an expanded physically cross-linked polyolefin with closed cells, it being noted JP 0130058 describes the balance layer as consisting of ethylene foaming material considered expanded polyolefin and JP 02299842 describes the balance layer as consisting of closed cell foam considered expanded closed cell foam wherein neither JP 0130058 or JP 02299842 teach away from expanded physically cross-linked polyolefin with closed cells rather the references are merely silent as to all the particulars. Breitscheidel is exemplary of the use of closed cell polyolefin foam material as cushioning for flooring wherein the foam is expressly described as expanded physically cross-linked polyethylene foam with closed cells which foam has low weight per unit area, low water absorbency, and low expense (Column 1, lines 42-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the specific ethylene foaming material or closed cell foam

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taught by Sjoberg as modified by JP 0130058 or JP 02299842 the expanded physically cross-linked polyethylene foam with closed cells shown by Breitscheidel known for use as cushioning for flooring and having low weight per unit area, low water absorbency, and low expense.

Sjoberg does not specifically teach the decorative laminate is cut into panels and provided with edges intended for joining, it being noted Sjoberg teaches the decorative laminate is used for floor coverings (Page 1, lines 6-8). Moebus discloses a method of manufacturing a decorative laminate used for floor coverings comprising providing a carrying core layer, providing an upper decorative and abrasion resistant laminate layer on the upper side of the core layer, pressing to form the decorative laminate, and then cutting the decorative laminate into panels and milling edges on the cut panels intended for joining together as a floor covering (Column 1, lines 15-47 of U.S. Patent 6,761,961). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Sjoberg the well known finishing steps for forming decorative laminates into floor coverings of cutting the decorative laminate into panels and milling edges on the cut panels intended for joining as shown for example by Moebus wherein only the expected results would be achieved.

Regarding claims 2, 10-12, 37, 38, 46, 47, 50, 54, and 55, Sjoberg further teaches the decorative and abrasion resistant laminate is formed by providing one or more underlay papers impregnated with phenol-formaldehyde resin, providing on the underlay papers one or more décor papers impregnated with melamine-formaldehyde resin, providing on the décor papers one or more overlay sheets impregnated with melamine-formaldehyde resin and hard particles such as silicon oxide, aluminum oxide, silicon carbide, etc. having an average size of 5 - 60 μm , and laminating the papers together under increased heat and pressure to form the upper decorative

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and abrasion resistant laminate having a thickness of 0.3 - 0.9 mm and a density of 1250 - 1500 kg/m³ (Page 1, lines 27-28 and Page 2, lines 1-11).

Regarding claims 14-16, 40-42, 48, 49, and 51-53, JP 0130058 and JP 02299842 teach the balance layer has a thickness in the range of 0.1-5 mm, and Breitscheidel teaches the foam has a density in the range of 50 to 400 kg/m³. Further, as noted above Sjoberg teaches including a dampening foil of a thermoplastic elastomer which dampening foil consists of an expanded physically cross-linked polyolefin with closed cells and is considered similar to the balance layer taught by Sjoberg as modified by either one of JP 0130058 or JP 02299842 and Breitscheidel. Sjoberg teaches the dampening foil has an elasticity compression coefficient of 0.8 - 2.0 Mpa, a thickness of 0.1 - 0.5 mm, and a density of 180 - 330 kg/m³ (Page 2, lines 15-22). Absent any unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the thickness, density, and elasticity compression coefficient of the balance layer as taught by Sjoberg as modified by either one of JP 0130058 or JP 02299842 and Breitscheidel for example by using any of the values with the ranges disclosed by JP 0130058, JP 02299842, or Breitscheidel or by using the properties of a similar layer within the laminate such as the dampening foil as a function of providing a balance layer that prevents the decorative laminate from warping and provides cushioning.

Regarding claims 17, 30-32, 43-45, and 64, Sjoberg teaches the upper decorative and abrasion resistant laminate, dampening foil, and carrying core layer are joined by means of melt-glue, heat, and pressure wherein it is considered obvious to join the balance layer to the core layer as taught by Sjoberg as modified by either one of JP 0130058 or JP 02299842 by the same only the expected results being achieved.

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Claims 24-26, 29, 33-36, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sjoberg, either one of JP 01310058 or JP 02299842, Breitscheidel, and Moebus as applied to claims 1, 2, 10-12, 14-17, 30-32, 37, 38, 40-55, 63, and 64 above, and further in view of Leukel et al. (U.S. Patent 4,770,916).

Sjoberg, either one of JP 01310058 or JP 02299842, Breitscheidel, and Moebus as applied above teach all of the limitations in claims 24-26, 29, 33-36, and 65 except for a teaching of including a conductive material such as carbon black or carbon fiber in the glue and elastomer layers. Leukel discloses a floor covering including rubber and glue layers wherein the layers include a conductive material such as carbon black or carbon fiber (conductivity greater than 500 k Ω cm) to impart static dissipating properties to the floor covering (Column 3, lines 5-9 and 36-49 and Column 4, lines 59-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in all of the glue and elastomer layers of Sjoberg as modified by either one of JP 01310058 or JP 02299842, Breitscheidel, and Moebus a conductive material such as carbon black or carbon fiber to impart static dissipating properties to the entire decorative laminate floor covering as shown by Leukel.

Claims 24 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sjoberg, either one of JP 01310058 or JP 02299842, Breitscheidel, and Moebus as applied to claims 1, 2, 10-12, 14-17, 30-32, 37, 38, 40-55, 63, and 64 above, and further in view of Nowell et al. (U.S. Patent 4,885,659).

Sjoberg, either one of JP 01310058 or JP 02299842, Breitscheidel, and Moebus as applied above teach all of the limitations in claims 24, 27-29, and 65 except for a teaching of including a conductive material such as a vacuum metallized aluminum layer in the balance

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layer. Nowell discloses a floor covering including a thermoplastic layer wherein the thermoplastic layer includes a conductive material such as a vacuum metallized aluminum layer (conductivity greater than 500 kΩcm) to impart static dissipating properties to the floor covering (Column 2, lines 3-18 and Column 4, lines 18-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the each of the thermoplastic layers of Sjoberg as modified by either one of JP 01310058 or JP 02299842, Breitscheidel, and Moebus a conductive material such as a vacuum metallized aluminum layer to impart static dissipating properties to the entire decorative laminate floor covering as shown by Nowell.

Claims 1, 2, 10-12, 14-17, 30, 31, 37, 38, 46-50, 54, 55, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 0130058 in view of Sjoberg, Breitscheidel, and Moebus.

JP 0130058 discloses a method of manufacturing a decorative laminate used for floor coverings comprising providing a carrying core layer (1 of Figure 3) wherein the upper side of the core is provided with a decorative and abrasion resistant thermosetting laminate (2 and 3 of Figure 3) and that below the lower side of the core consists of a balance layer (5 of Figure 3) consisting of ethylene foaming material considered a thermoplastic elastomer, e.g. conventionally polyethylene and a foaming agent, having the purpose of cushioning, acoustic dampening, and also considered to prevent warping of the decorative laminate (See abstracts and Figure 3).

JP 0130058 is silent as to the specific material of the carrying core. Sjoberg directed similarly to decorative laminate used for floor coverings fully described above teach the carrying

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core comprises fiber board. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the carrying core in JP 0130058 those materials known as useful and suitable in the art such as fiber board as shown by Sjoberg only the expected results being achieved.

JP 0130058 does not specifically describe the balance layer as consisting of an expanded physically cross-linked polyolefin with closed cells, it being noted JP 0130058 describes the balance layer as consisting of ethylene foaming material considered expanded polyolefin wherein JP 0130058 does not teach away from using expanded physically cross-linked polyolefin with closed cells rather JP 0130058 is merely silent as to all the particulars.

Breitscheidel is exemplary of the use of ethylene foam material as cushioning for flooring wherein the foam is expressly described as expanded physically cross-linked polyethylene foam with closed cells which foam has low weight per unit area, low water absorbency, and low expense. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the specific ethylene foaming material taught by JP 0130058 the expanded physically cross-linked polyethylene foam with closed cells shown by Breitscheidel known for use as cushioning for flooring and having low weight per unit area, low water absorbency, and low expense.

JP 0130058 does not specifically teach the decorative laminate used for floor coverings is cut into panels and provided with edges intended for joining. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in JP 0130058 the well known finishing steps for forming decorative laminates into floor coverings of cutting the

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decorative laminate into panels and milling edges on the cut panels intended for joining as shown for example by Moebus wherein only the expected results would be achieved.

Regarding claims 2, 10-12, 37, 38, 46, 47, 50, 54, and 55, JP 0130058 is silent as to the specifics of the upper decorative and abrasion resistant laminate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the specific upper laminate taught by JP 0130058 the known laminate specifically shown by Sjoberg having suitable decorative and abrasion resistant properties.

Regarding claims 14-16, 48, and 49, JP 0130058 teaches the balance layer has a thickness in the range of 0.1-5 mm, and Breitscheidel teaches the foam has a density in the range of 50 to 400 kg/m³. Further, as noted above Sjoberg teaches including a dampening foil of a thermoplastic elastomer which dampening foil consists of an expanded physically cross-linked polyolefin with closed cells and is considered similar to the balance layer taught by JP 0130058 as modified by Breitscheidel. Sjoberg teaches the dampening foil has an elasticity compression coefficient of 0.8 - 2.0 Mpa, a thickness of 0.1 - 0.5 mm, and a density of 180 - 330 kg/m³ (Page 2, lines 15-22). Absent any unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the thickness, density, and elasticity compression coefficient of the balance layer as taught by JP 0130058 as modified by Breitscheidel for example by using any of the values within the ranges disclosed by J 0130058 or Breitscheidel and by using the properties of a similar layer within the laminate such as a dampening foil as a function of providing a balance layer that provides acoustic dampening.

Regarding claims 17, 30, 31, and 64, JP 0130058 is silent as to how the layers of the laminate are joined. It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to join the layers taught by JP 0130058 by means of melt-glue, heat, and pressure as shown by Sjoberg only the expected results being achieved.

Claims 24-26, 29, 33-36, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 0130058, Sjoberg, Breitscheidel, and Moebus as applied to claims 1, 2, 10-12, 14-17, 30, 31, 37, 38, 46-50, 54, 55, and 64 above, and further in view of Leukel.

JP 0130058, Sjoberg, Breitscheidel, and Moebus as applied above teach all of the limitations in claims 24-26, 29, 33-36, and 65 except for a teaching of including a conductive material such as carbon black or carbon fiber in the glue and elastomer layers. Leukel discloses a floor covering including rubber and glue layers wherein the layers include a conductive material such as carbon black or carbon fiber (conductivity greater than 500 kΩcm) to impart static dissipating properties to the floor covering. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in all of the glue and elastomer layers of JP 0130058 as modified by Sjoberg, Breitscheidel, and Moebus a conductive material such as carbon black or carbon fiber to impart static dissipating properties to the entire decorative laminate floor covering as shown by Leukel.

Claims 24 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 0130058, Sjoberg, Breitscheidel, and Moebus as applied to claims 1, 2, 10-12, 14-17, 30, 31, 37, 38, 46-50, 54, 55, and 64 above, and further in view of Nowell.

JP 0130058, Sjoberg, Breitscheidel, and Moebus as applied above teach all of the limitations in claims 24, 27-29, and 65 except for a teaching of including a conductive material such as a vacuum metallized aluminum layer in the balance layer. Nowell discloses a floor covering including a thermoplastic layer wherein the thermoplastic layer includes a conductive

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material such as a vacuum metallized aluminum layer (conductivity greater than 500 kΩcm) to impart static dissipating properties to the floor covering. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the thermoplastic layers of JP 0130058 as modified by Sjoberg, Breitscheidel, and Moebus a conductive material such as a vacuum metallized aluminum layer to impart static dissipating properties to the entire decorative laminate floor covering as shown by Nowell.

Claims 1, 2, 10-12, 14-17, 30-32, 37, 38, 40-55, 59, 63, and 64 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 5-7, and 9-25 of copending Application No. 11/129,497 in view of either one of JP 0130058 or JP 02299842, Breitscheidel, and Moebus. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 2, 5-7, and 9-25 of copending Application No. 11/129,497 disclose the invention substantially as claimed except for teaching of including a balance layer consisting of an expanded physically cross-linked polyolefin with closed cells as the visible surface beneath the core layer and cutting the decorative laminate into panels and providing the panels with edges intended for joining which would have been obvious in view of either one of JP 0130058 or JP 02299842, Breitscheidel, and Moebus as discussed above.

This is a provisional obviousness-type double patenting rejection.

Claims 24-26, 29, 33-36, and 65 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 5-7, and 9-25 of copending Application No. 11/129,497, either one of JP 0130058 or JP 02299842, Breitscheidel, and Moebus as applied to claims 1, 2, 10-12, 14-17, 30-32, 37, 38, 40-55, 59, 63, and 64 above,

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and further in view of Leukel. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 2, 5-7, and 9-25 of copending Application No. 11/129,497, either one of JP 0130058 or JP 02299842, Breitscheidel, and Moebus disclose the invention substantially as claimed except for a teaching of including a conductive material in the glue and elastomer layer which would have been obvious in view of Leukel as discussed above.

This is a provisional obviousness-type double patenting rejection.

Claims 24 and 27-29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 5-7, and 9-25 of copending Application No. 11/129,497, either one of JP 0130058 or JP 02299842, Breitscheidel, and Moebus as applied to claims 1, 2, 10-12, 14-17, 30-32, 37, 38, 40-55, 59, 63, and 64 above, and further in view of Nowell. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 2, 5-7, and 9-25 of copending Application No. 11/129,497, either one of JP 0130058 or JP 02299842, Breitscheidel, and Moebus disclose the invention substantially as claimed except for a teaching of including a conductive material in the thermoplastic layer which would have been obvious in view of Nowell as discussed above.

This is a provisional obviousness-type double patenting rejection.

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(10) Response to Argument

Response to the arguments made regarding the rejection of claims 1, 2, 10-12, 14-17, 30-32, 37, 38, 40-55, 63, and 64 under 35 U.S.C. 103(a) as being unpatentable over Sjoberg in view of either JP 01310058 or JP 02299842, Breitscheidel, and Moebus.

Appellants argue on page 5, “Although the Examiner alleges that Sjoberg discloses a method of manufacturing a decorative laminate used for floor coverings comprising a carrying core layer of fiber board, providing a dampening (e.g. acoustic dampening) foil layer of thermoplastic polyolefin elastomer on the upper side of the core layer and providing an uppermost visible decorative and abrasion resistant thermosetting laminate layer on the core layer, and then pressing to form the decorative laminate (page 1, lines 17-26 and page 2, lines 12-14) the claimed invention does not have a dampening (e.g. acoustic dampening) foil layer of thermoplastic polyolefin elastomer on the upper side of the core layer as does Sjoberg.”.

This statement is not commensurate with appellants disclosure and claims. Claim 63 expressly requires “a dampening foil of an elastomer arranged between the upper side of the core and the abrasion resistant thermosetting laminate”, i.e. the claimed invention does have a dampening foil layer of thermoplastic polyolefin elastomer on the upper side of the core layer as does Sjoberg (See also page 2, lines 1-4 and page 4, lines 10-12 of appellants specification).

Appellants further argue on page 6, “The full translation of JP 0130058 (attached to the Evidence Appendix) is silent as to the nature of cushion 5 and only discusses member 4 as a rubber sheet or foam material or an ethylene foam material (See translations page 5, lines 1-2). Thus, there is absolutely no disclosure as to the nature of cushion material 5 and certainly no disclosure as attributed to it by the Examiner in the final rejection.”.

Page 5, lines 1-8 of the translation of JP 0130058 states

“For the **cushion member 4**, can be used a 0.5 – 10 mm rubber sheet or foam material or an ethylene foam material. Fig. 3 shows the third embodiment example, wherein a 1 - 5 mm **cushion member 5** is further laminated on the back surface of the base sheet of the first embodiment example of the second embodiment example. With the second embodiment example

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and third embodiment example, the impact from walking is reduced by **the inserted cushion**, and a feel of walking on is further improved.” (Emphasis added). Also page 6, line 10 states “**4, 5 cushion material**” (Emphasis added). Both layers 4 and 5 of JP 0130058 are referred to as cushion members and cushion materials. Further, the inserted cushions provided the same improved feel of walking. JP 0130058 expressly states cushion member 4 is an ethylene foam material without an express disclosure that the cushion member 5 is any particular material. One reading JP 0130058 as a whole would readily conclude both cushion members/cushion materials 4, 5 are formed of the same ethylene foam material as both members/materials are referred to as cushion members/cushion materials in the reference and both members/materials result in the same improved properties.

Appellants further argue, “Because veneer 2 is composed of a natural material i.e., Japanese oak, it is not a thermosetting laminate, nor can it be stated that a cushion 3 of JP ‘842 inherently prevents warping of a thermosetting laminate since cushion 3 in JP ‘842 is only stated to be a cushion and not a balance layer and therefore the cushion cannot have the purpose recited in the claim of “preventing warping of said decorative laminate”.”.

JP 02299842 expressly teaches including the cushion material to prevent the generation of warpage of the floor material (See the abstract) considered a decorative laminate including an uppermost decorative layer (2), a core layer (1), and a lowermost cushion layer (3) such that one of ordinary skill in the art would have a reasonable expectation of success in including the cushion layer within the floor material considered a decorative laminate taught by Sjoberg including an uppermost decorative layer and a core layer.

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Appellants further argue on page 7, “However, Breitscheidel et al. is directed to “a multilayer composite sheet, especially for use as a padding layer under an artificial grass or turf”, Breitscheidel et al.’s multilayer padding is shown in the sole figure wherein the polyolefin foam sheet 1, a layer of kraft paper 2, and an aluminum foil 3 are illustrated as layers 1, 2, 3, respectively. While Breitscheidel et al. is in effect “a padding layer,” it is not attached to any type of flooring material but is merely “placed underneath the artificial turf.” See column 1, lines 42-45.” and on page 8, “Thus, in order to make the proposed combination of references thus far, the Examiner would have to strip the cross-linked polyolefin sheet of Breitscheidel et al. from its bonded plastic sheet (as well as the metallic foil), substitute it for the ethylene materials of either of the Japanese references and then further bond such modified materials to the core of the Sjoberg references, where at no time is there indication of the Japanese references or Breitscheidel et al. that such foam material can act as a balance layer preventing warping of a decorative thermosetting laminate as specified in the claims.”.

JP 01310058 teaches the cushioning layer is formed of ethylene foam material bonded to the back of the core layer. JP 02299842 teaches the cushioning layer is formed of closed cell foam bonded to the back of the core layer. Thus, while the use of ethylene foam and closed cell foam was known neither reference expressly describes physically cross-linked foam. The references do not teach away from the claimed foam rather the references lack specific detail as to all the particulars of the foam. Breitscheidel expressly discloses a physically cross-linked ethylene with closed cells used in a cushioning layer for floor material having benefits of low weight per unit area, low water absorbency, and low expense. One of ordinary skill in the art would have found it obvious to use as the specific foam in either of JP 01310058 or JP 02299842 the foam taught by Breitscheidel for those benefits. It is acknowledged that Breitscheidel teaches the foam is “especially for use as a padding layer under artificial grass”, Breitscheidel does not teach bonding the foam to a core layer of fiber board, and Breitscheidel does teach bonding the foam to a metallic layer. However, Breitscheidel is applied simply as exemplary of a specific foam known in the art for use as a cushioning layer in floor materials. Breitscheidel does not teach the foam is only for use in artificial grass. Breitscheidel may not teach bonding the foam

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to a core layer however this teaching is expressly described in both JP 01310058 and JP 02299842. Finally, Breitscheidel teaches the foam is bonded to a metallic layer to prevent expansion of the foam when the floor material is exposed to sunlight (Column 2, lines 19-30) and there is no teaching or suggestion that the metallic layer somehow affects the cushioning or any other properties of the foam.

Appellants further argue on page 8, “Thus, the Examiner further cites Moebus as disclosing a method of manufacturing decorative laminate used for floor covering which only has a carrying core layer, an upper decorative and abrasion resistant laminate layer, and absolutely no balance layer and clearly no balance layer comprising a physically cross-linked expanded polyolefin with closed cells as recited in the claims. In fact, none of the cited references, in any possible proposed combination, teaches the process of joining the decorative laminate, the core, and the balance layer, by pressing and subsequently cutting the achieved laminate into panels as claimed.”.

Moebus was only applied as evidence of the well known finishing steps for forming decorative laminates into floor coverings by cutting the decorative laminate into panels and milling edges on the cut panels intended for joining there being no evidence of record that these finishing steps are in any way affected by including a balance layer within the laminate.

Response to the arguments made regarding the rejection of claims 24-26, 29, 33-36, and 65 under 35 U.S.C. 103(a) as being unpatentable over Sjoberg, either one of JP 01310058 or JP 02299842, Breitscheidel, and Moebus, and further in view of Leukel.

Appellants further argue on page 9, “However, firstly, none of the applicant’s claims used the term “elastomer layers” though it is clear that some claims, e.g., claims 33-36, specifically recite a conductive material in the glue and claims 65 recites a conductive material in the bonding layer.” and “Rather, all that Leukel et al. is concerned with is imparting static dissipative properties to a rubber layer and, as its quite apparent, none of the claims require a rubber but rather the antithesis of a thermosetting material, such a rubber layer, by the use of a thermoplastic material such as the claimed polyolefin. Furthermore, because as there is no “polyolefin” in the teachings of Leukel et al. but only rubber, there is no reason to expect that Leukel would teach incorporation of a conductive material into a polyolefin as recited in claims 24-26 and 29.”.

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Claims 33-36 and 65 require a conductive material in the glue. Leukel teaches a floor material wherein the glue layers include a conductive material to impart improved static dissipating properties to the floor material such that it would have been obvious to include the conductive material in the glue of Sjoberg as modified to form a floor material with this property.

Claims 24-26 and 29 require a conductive material in the balance layer. Leukel teaches a floor material wherein the elastomer layers include a conductive material to impart improved static dissipating properties to the floor material. Appellants claims do not state the balance layer is an elastomer. The claims require the balance layer is polyolefin foam. However, polyolefin foam is an elastomer as evidenced not only by JP 01310058 which describes polyolefin foam in the alternative to rubber sheet or foam, i.e. both materials have the same properties, but appellants specification on page 2, line 23 states "The balance layer is suitably constituted of a thermoplastic elastomer" and then the specification expressly describes the polyolefin foam. Thus, because Leukel teaches including the conductive material improves the antistatic properties of elastomeric layers in floor material it would have been obvious to one of ordinary skill in the art to include the material in the elastomeric layers taught by Sjoberg as modified, i.e. the polyolefin foam layer, for the same reason.

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Response to the arguments made regarding the rejection of claims 24 and 27-29 under 35

U.S.C. 103(a) as being unpatentable over Sjoberg, either one of JP 01310058 or JP 02299842,

Breitscheidel, and Moebus, and further in view of Nowell.

Appellants further argue on page 9, “While it is alleged that Nowell discloses a floor covering including a thermoplastic layer wherein the thermoplastic layer, includes a conductive material, such as vacuum metallized aluminum layer to impart static dissipating properties to the floor covering, Nowell is not directed to a laminate but rather to a static dissipative mat.”.

Nowell teaches a floor material wherein the thermoplastic layer includes a conductive material to impart improved static dissipating properties to the floor material such that it would have been obvious to include the conductive material in the thermoplastic of Sjoberg as modified to form a floor material with this property there being no teaching or suggestion in Nowell that the inclusion of the conductive material is affected by the floor material being formed of a single or multiple layers.

Response to the arguments made regarding the rejection of claims 1, 2, 10-12, 14-17, 30,

31, 37, 38, 46-50, 54, 55, and 64 under 35 U.S.C. 103(a) as being unpatentable over JP 0130058

in view of Sjoberg, Breitscheidel, and Moebus.

Appellants argue on page 11, “The defects of these references in combination is not cured by eliminating the alternative JP 02299842 cited with regard to paragraph 1 above and for all of the reasons set forth with regard to the rejection of the claims in paragraph 1 above, such deficiencies are herein incorporated by reference as though fully set-forth herein. Reversal of the rejection is therefore respectfully requested.”.

No further argument is made. However, it is noted the rejection is JP 0130058 as modified and not simply eliminating the alternative JP 02299842 in the rejection of Sjoberg as modified.

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Response to the arguments made regarding the rejection of claims 24-26, 29, 33-36, and 65 under 35 U.S.C. 103(a) as being unpatentable over JP 0130058, Sjoberg, Breitscheidel, and Moebus, and further in view of Leukel.

No further argument is made.

Response to the arguments made regarding the rejection of claims 24 and 27-29 under 35 U.S.C. 103(a) as being unpatentable over JP 0130058, Sjoberg, Breitscheidel, and Moebus, and further in view of Nowell.

No further argument is made.

Response to the arguments made regarding the double patenting rejections.

It is noted the obviousness-type double patenting rejections are/were provisional.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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